

WHAT IS CLAIMED IS:

1. An endoscopic treatment system having a first insertion instrument, a second insertion instrument into which the first insertion instrument is inserted, and an observation device included in either the first insertion instrument or the second insertion instrument and used to observe a living-body tissue, comprising:

a clamping and lifting member that is included in the first insertion instrument and that has a clamping member which clamps a living-body tissue that is an object of treatment, and a lifting member which lifts the living-body tissue through bending;

a tissue retainer member that is included in the second insertion instrument and that controls the position of the living-body tissue clamped and lifted by the clamping and lifting member included in the first insertion instrument or controls the lifting thereof;

a ligating member that ligates the living-body tissue whose position or lifting is controlled by the tissue retainer member; and

a resecting member that resects the living-body tissue at a position between a region ligated by the ligating member and a region clamped by the clamping and lifting member.

2. An endoscopic treatment system having a first

insertion instrument, a second insertion instrument into which the first insertion instrument is inserted, and a third insertion instrument into which the second insertion instrument is inserted, and an observation device included in any of the first, second, and third insertion instruments and used to observe a living-body tissue, comprising:

- a clamping and lifting member that is included in the first insertion instrument and that has a clamping member which clamps an intended living-body tissue and a lifting member which lifts the living-body tissue through bending;

- a lateral hole that is included in the second insertion instrument and that restricts the position or movement of the living-body tissue that is clamped and lifted by the clamping and lifting member included in the first insertion instrument;

- a ligating member that ligates the tissue;

- a resecting member that resects the living-body tissue at a position between a region ligated by the ligating member and a region clamped by the clamping and lifting member; and

- a passage channel which is included in the third insertion instrument and through which the first insertion instrument and second insertion instrument are passed.

3. An endoscopic treatment system comprising:

- a treatment aid having puncturing needle and ligature

passage channels through which respective puncturing needles and ligatures are passed;

a receiving member located at least at the distal ends of the puncturing needle and ligature passage channels of the treatment aid, and formed with a bar-like or plate-like member at a position at which the receiving member substantially perpendicularly intersects the axes of movement of the puncturing needles and the ligatures or with a certain angle twists with respect to the axes of movement of the puncturing needles and the ligatures; and

arm members that link the distal end of the treatment aid and the receiving member, wherein:

the treatment aid is detachable from the distal part of an endoscope.

4. The endoscopic treatment method implemented in an endoscopic treatment system according to Claim 1, comprising the steps of:

inserting a guide endoscope into an intended region in a living body's duct;

inserting the second insertion instrument mounted on the outer surface of the endoscope;

exchanging the endoscope for the first insertion instrument;

clamping a living-body tissue through a lateral hole formed in the second insertion instrument;

lifting the clamped living-body tissue using the first insertion instrument;

ligating the lifted living-body tissue using the ligating member;

resecting the ligated living-body tissue at a position between the ligated region and a clamper; and

removing and collecting the resected living-body tissue together with the first insertion instrument.

5. The endoscopic treatment method implemented in an endoscopic treatment system according to Claim 2, comprising the steps of:

inserting an endoscope into an intended region in a living body's duct;

inserting the third insertion instrument into the intended region with the third insertion instrument mounted on the outer surface of the endoscope;

exchanging the endoscope for the second insertion instrument into which the first insertion instrument is inserted;

clamping a living-body tissue through the lateral hole, which is formed in the second insertion instrument, using the first insertion instrument;

lifting the clamped living-body tissue using the first insertion instrument;

ligating the lifted living-body tissue using the

ligating member;

resecting the ligated living-body tissue at a position between the ligated region and a clamper; and

removing and collecting the resected living-body tissue together with the first insertion instrument and second insertion instrument.

6. The endoscopic treatment system according to Claim 1, wherein the inserting sections of the first and second insertion instruments are formed with flexible members.

7. The endoscopic treatment system according to Claim 6, wherein the lifting direction of a living-body tissue in which the first insertion instrument lifts a living-body tissue is a direction substantially vertical to the longitudinal-axis direction of the second insertion instrument.

8. The endoscopic treatment system according to Claim 7, wherein the first insertion instrument is an endoscope having the observation device.

9. The endoscopic treatment system according to Claim 8, wherein the clamping member included in the endoscope is a pair of clamp forceps that is jutted out of the distal part of the endoscope through a treatment instrument passage channel lying through the endoscope.

10. The endoscopic treatment system according to Claim 9, wherein the endoscope is of a side-vision or oblique-vision

type.

11. The endoscopic treatment system according to Claim 10, wherein the upper side of an image displayed on a monitor included in the side-vision or oblique-vision endoscope faces the distal side of the insertion unit of the endoscope.

12. The endoscopic treatment system according to Claim 9, wherein the endoscope is of a direct-vision type and includes a forceps raising member capable of moving a treatment instrument, which is passed through the treatment instrument passage channel, in upward and downward directions with respect to the longitudinal-axis direction of the endoscope.

13. The endoscopic treatment system according to Claim 9, wherein the endoscope is a direct-vision endoscope having two or more bending sections, which bend mutually independently, juxtaposed in series with each other.

14. The endoscopic treatment system according to Claim 10, wherein the tissue retaining member is a lateral hole formed in the lateral side of the second insertion instrument.

15. The endoscopic treatment system according to Claim 14, wherein the distal part of the second insertion instrument has a slit through which when the first insertion instrument is bent upward on a side of the second insertion instrument opposite to the lateral-hole side thereof in order to lift a living-body tissue, the portion of the first insertion

instrument from the distal end thereof to the inserting section thereof can pass.

16. The endoscopic treatment system according to Claim 15, wherein the slit extends from the distal end of the second insertion instrument to the operator-side end thereof.

17. The endoscopic treatment system according to Claim 10, wherein the tissue retaining member includes: a receiving member that is located in more distal end of the second insertion instrument than the ligating member is, and that is formed with a substantially bar-like or plate-like member which substantially perpendicularly intersects the axis of movement of the ligating member or with a certain angle twists with respect to the axis of movement of the ligating member; and arm members extended from the distal end of the second insertion instrument and designed to secure the receiving member.

18. The endoscopic treatment system according to Claim 17, wherein the receiving member is movable in a direction substantially parallel to the direction of the axis of movement of the ligating member.

19. The endoscopic treatment system according to Claim 15, wherein the ligating member is a stapler comprising: a plurality of elastic staples located on the operator side of the tissue retaining member; a thrusting member for thrusting the elastic staples; an operating member coupled

to the operator-side end of the thrusting member and extended from the distal end of the therapeutic instruments insertion aid to the operator-side end thereof; and a receiving member which is formed on the distal side of the lateral hole, on which the thrust elastic staples are abutted, and which bends the feet of the elastic staples.

20. The endoscopic treatment system according to Claim 15, wherein the ligating member includes a puncturing member that pierces all the layers of a living-body tissue and a ligating member for ligating all the layers of a living-body tissue.

21. The endoscopic treatment system according to Claim 20, wherein the ligating member includes a substantially strap-like coupling member and securing members which are formed at both ends of the coupling member and whose diameter is larger than that of the coupling member, and the securing member is held in the lumen of a puncturing needle.

22. The endoscopic treatment system according to Claim 21, wherein the puncturing member is a puncturing needle, and the tip of the puncturing needle moves above the tissue retaining member from the operator-side end of the tissue retaining member to the distal end thereof substantially parallel to the longitudinal-axis direction of the second insertion instrument.

23. The endoscopic treatment system according to Claim 22,



wherein two or more puncturing needles are included as the puncturing needle.

24. The endoscopic treatment system according to Claim 19, wherein the resecting member is a cutter that moves above the lateral hole.

25. The endoscopic treatment system according to Claim 19, wherein the resecting member is a snare extending from the operator-side end of the second insertion instrument to the distal end thereof and having a loop-like metallic wire at the distal end thereof.

26. The endoscopic treatment system according to Claim 25, wherein a snare locking member that locks the loop of the snare such that the loop can be freely unlocked is formed around the lateral hole in the distal part of the second insertion instrument.

27. The endoscopic treatment system according to Claim 25, wherein a substantially plate-like floating suppressing member for suppressing floating of the loop of the snare is included in the distal part of the second insertion instrument.

28. The endoscopic treatment system according to Claim 24, wherein, the resecting member is interposed at least between a lesion to be resected and the ligating member, and the resecting member is located at a position where a living-body tissue, which is 1 mm or more wide, lies between a

resecting plane on which the resecting member moves and a lesion and a region to be sutured.

29. The endoscopic treatment system according to Claim 28, wherein the ligating member and resecting member are formed over the full circumference around the internal surface of the second insertion instrument.

30. The endoscopic treatment system according to Claim 2, wherein the operator-side portion of the inserting section of the third insertion instrument having substantially the same length as the descending colon is hard, and the distal portion thereof other than the operator-side portion thereof is soft.

31. The endoscopic treatment system according to Claim 2, wherein a hardness variation mechanism is included for the inserting section of the third insertion instrument.

32. The endoscopic treatment system according to Claim 2, wherein the third insertion instrument has an insertion unit locking member for preventing the third insertion instrument from moving from the vicinity of an intended lesion.

33. The endoscopic treatment system according to Claim 32, wherein the insertion unit locking member includes at least one lateral hole formed in the outer surface of the inserting section of the third insertion instrument, a suction channel that links the lateral hole and the operator-side end of the third insertion instrument, and an

aspirator coupled to the suction channel.

34. The endoscopic treatment system according to Claim 32, wherein the insertion unit locking member is a balloon included in the distal part of the third insertion instrument.

35. The endoscopic treatment system according to Claim 1, further comprising a securing member that is freely attachable or detachable and fixed to at least either of the first insertion instrument and the second insertion instrument so as to lock each other.

36. The endoscopic treatment system according to Claim 2, wherein the inserting section of the third insertion instrument has a slit extending from the distal end of the third insertion instrument to the operator-side end thereof.

37. The endoscopic treatment system according to Claim 1, wherein the second insertion instrument includes a bending mechanism.

38. An endoscopic treatment system having a first insertion instrument, a second insertion instrument into which the first insertion instrument is inserted, and an observation device included in either the first insertion instrument or the second insertion instrument and used to observe a living-body tissue, comprising:

clamping and lifting means that is included in the first insertion instrument and that has clamping means which

clamps a living-body tissue that is an object of treatment and lifting means which lifts the living-body tissue through bending;

tissue retaining means that is included in the second insertion instrument and that controls the position of the living-body tissue clamped and lifted by the clamping and lifting means included in the first insertion instrument or to control the lifting thereof;

ligating means for ligating the living-body tissue whose position or lifting is controlled by the tissue retaining means; and

resecting means for resecting the living-body tissue at a position between a region ligated by the ligating means and a region clamped by the clamping and lifting means.